

## ABSTRACT

With this polarization mode dispersion compensation method, an optical signal which is sent by an optical signal transmitter 5 is propagated along an optical transmission path 6, and, after having passed through a polarization controller 1, is inputted to a polarizer 2. A specified polarization component is separated out by the polarizer 2 from this optical signal which has been thus inputted. The optical signal which has been thus separated is inputted into a waveform deterioration detector 3, which detects waveform deterioration thereof. Based upon information related to the waveform deterioration which has been detected, a control device 7 controls the polarization controller 1 so that the waveform deterioration becomes a minimum.